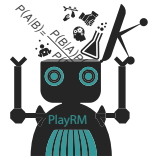


# Playnomics Quarterly Player Engagement Study



This report is a digest of data generated by millions of social, casual and mobile game players in the Playnomics game network, during the first quarter of 2013. In addition to summarizing global social game engagement levels, this particular report takes a comparative look at the behavioral characteristics of arcade versus non-arcade players. Building upon our insights generated from these initial observations the report goes on to explore monetization characteristics of non-arcade players in depth.

“Arcade games” are defined as games designed and intended to provide short-term and immediate entertainment. These games are often played in a single session lasting one half hour or less with few instances of return users following the initial session. Arcade games are casual in nature.

“Non-arcade games” are designed and intended for longer term play experiences often featuring levels, campaigns and collectables.

## Summary of Key Insights

- Across **all** types of games, players in Turkey had the highest engagement levels with 45.9 minutes per play session; players in Japan had the highest average number of play sessions at 22.5 per person.
- **Arcade** players typically spent 16.7 minutes per session across 1.4 sessions, whereas **Non-Arcade** players spent 28.8 minutes per session across 17.9 sessions, suggesting that **Non-Arcade** games produce greater engagement levels and retention rates.
- **Non-Arcade** games, with a consistently longer average session length, show a 13x increase in sessions played per player over the course of Q1. A similar ratio exists between the initial and aggregate metrics of average total time played per player.
- The top 1% of monetizers accounted for 32.68% of total spend, resulting in the bottom 99% of monetizers providing only 67.32% of total spend.
- LTV metrics for **Non-Arcade** games resembles a power law distribution, where a small proportion of whales account for a large portion of total in game spend.
- Among new **Non-Arcade** players who joined in the first two weeks of the quarter, 0.77% monetized and total spend among these monetizers was almost \$600,000.

## Arcade + Non-Arcade Global Q1 Engagement Statistics

Average Session Length



**26.7** minutes

Average Sessions Per Player



**5.9**

Average Time Played Per Player



**157.6** minutes

## Arcade VS Non-Arcade Comparative Behavior

The table below depicts the playtime behavior patterns of Arcade versus Non-Arcade players on their first day of play in Q1 compared with the aggregate total of these same metrics, gathered over the entire course of Q1:





	First Day Behavior			Q1 Behavior		
	Average Session Length	Average Sessions Per Player	Average Time Played Per Player	Average Session Length	Average Sessions Per Player	Average Time Played Per Player
ARCADE	 <b>15.5</b> minutes	 <b>1.1</b> sessions	 <b>16.8</b> minutes	 <b>16.7</b> minutes	 <b>1.4</b> sessions	 <b>23.9</b> minutes
NON-ARCADE	 <b>26.3</b> minutes	 <b>1.4</b> sessions	 <b>36</b> minutes	 <b>28.8</b> minutes	 <b>17.9</b> sessions	 <b>517.9</b> minutes

## Arcade VS Non-Arcade Engagement Scores

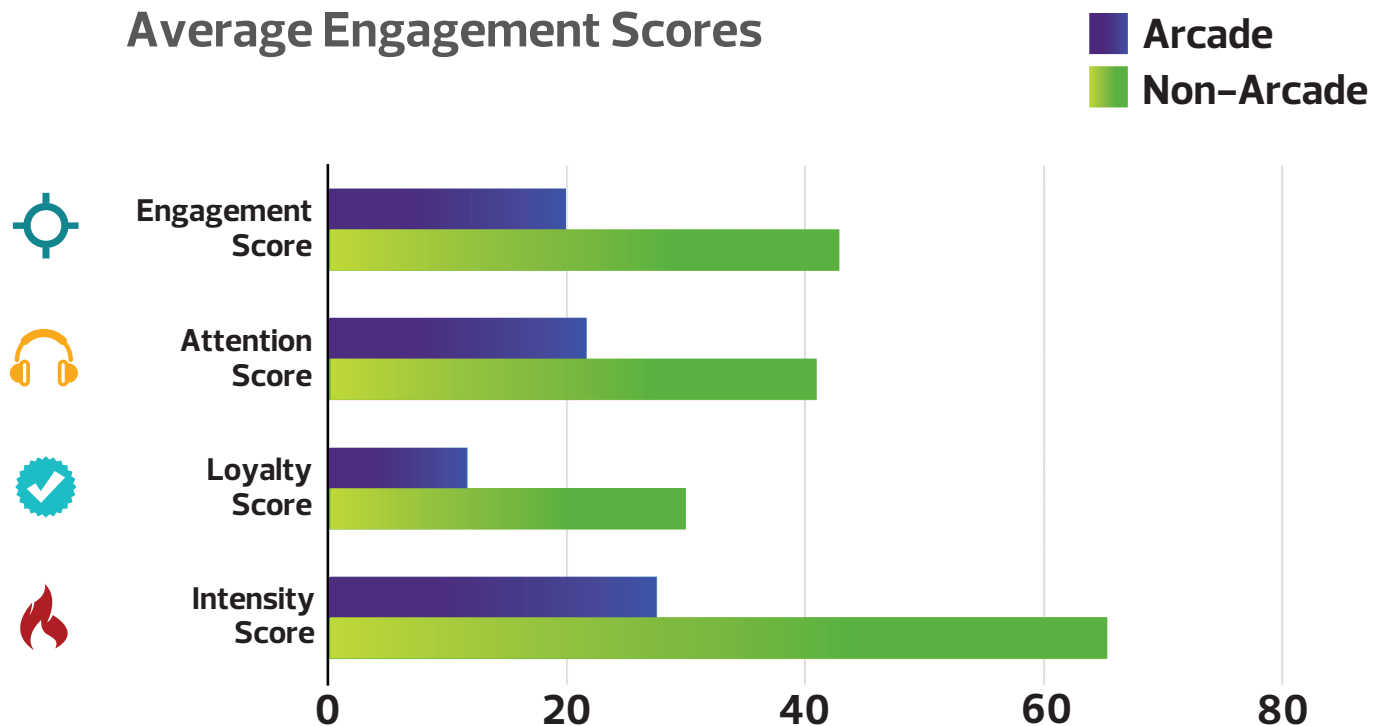
### Engagement Scores

The Playnomics Engagement Score is like a high fidelity credit score for gamers, designed to quantify performance across every stage in a player's life cycle for different styles of play. Calculated from key industry-standard and proprietary play metrics, the engagement score is an effective measure and predictor of overall game population health. Each player in the Playnomics network is scored and tracked independently and ultimately assigned to one or more behavioral segments.

The player engagement score is a composite of three independent subscores ranging from 0 to 100, each measuring distinct qualities of a player's past and current behavior within a single game. Four different scores are referenced in this report:

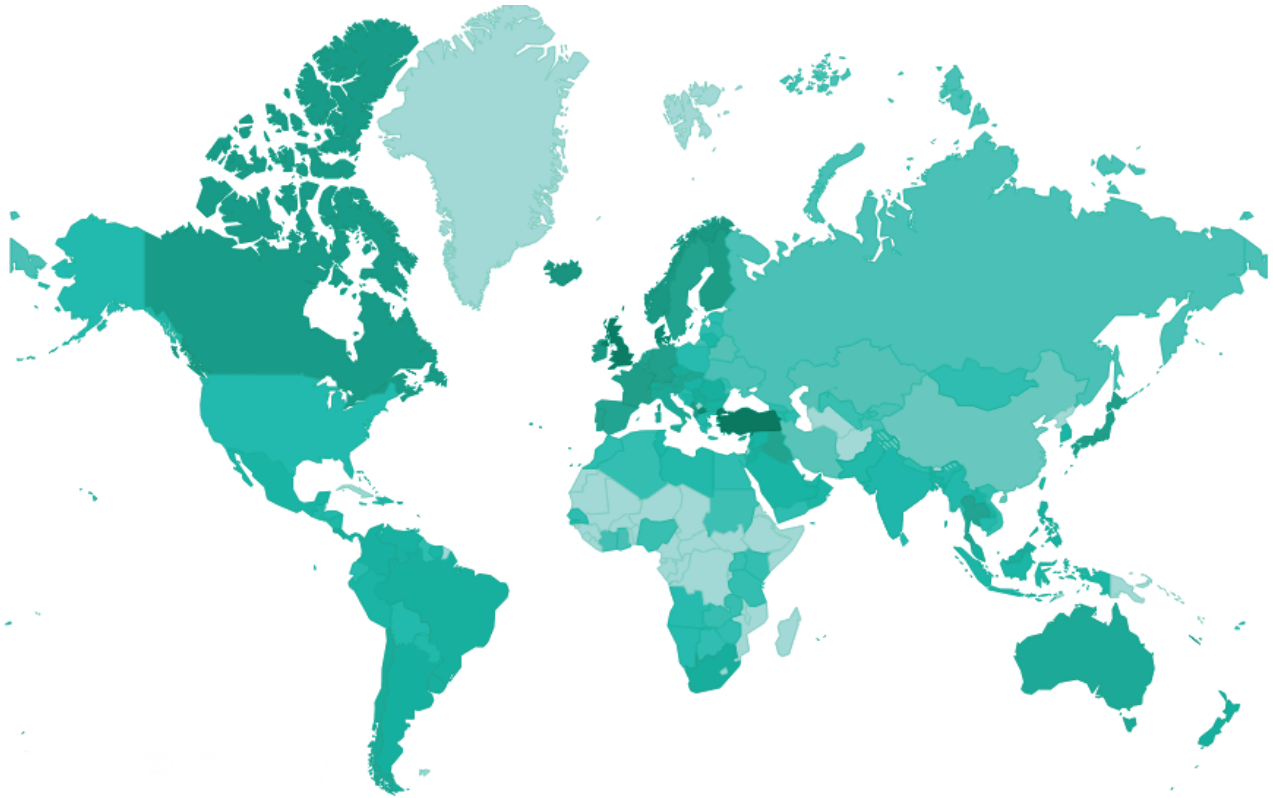
-  The **total engagement score** is an aggregate measure of a player's overall engagement in a particular game based on the three engagement subscores (attention, loyalty, intensity) ranging from 0 to 100.
-  The **attention score** measures a player's current involvement in game, driven primarily by recent time on site and number of sessions played. Current and recently active players have higher attention scores.
-  The **loyalty score** measures long-term frequency and regularity of play, driven by meaningful return patterns and overall commitment to the game. Players who return consistently over long periods of time have higher loyalty scores.
-  The **intensity score** measures in-game quality and degree of play based on player's recent in-game interactions. Players who perform more actions during a game session will have a higher intensity score.

### Average Engagement Scores



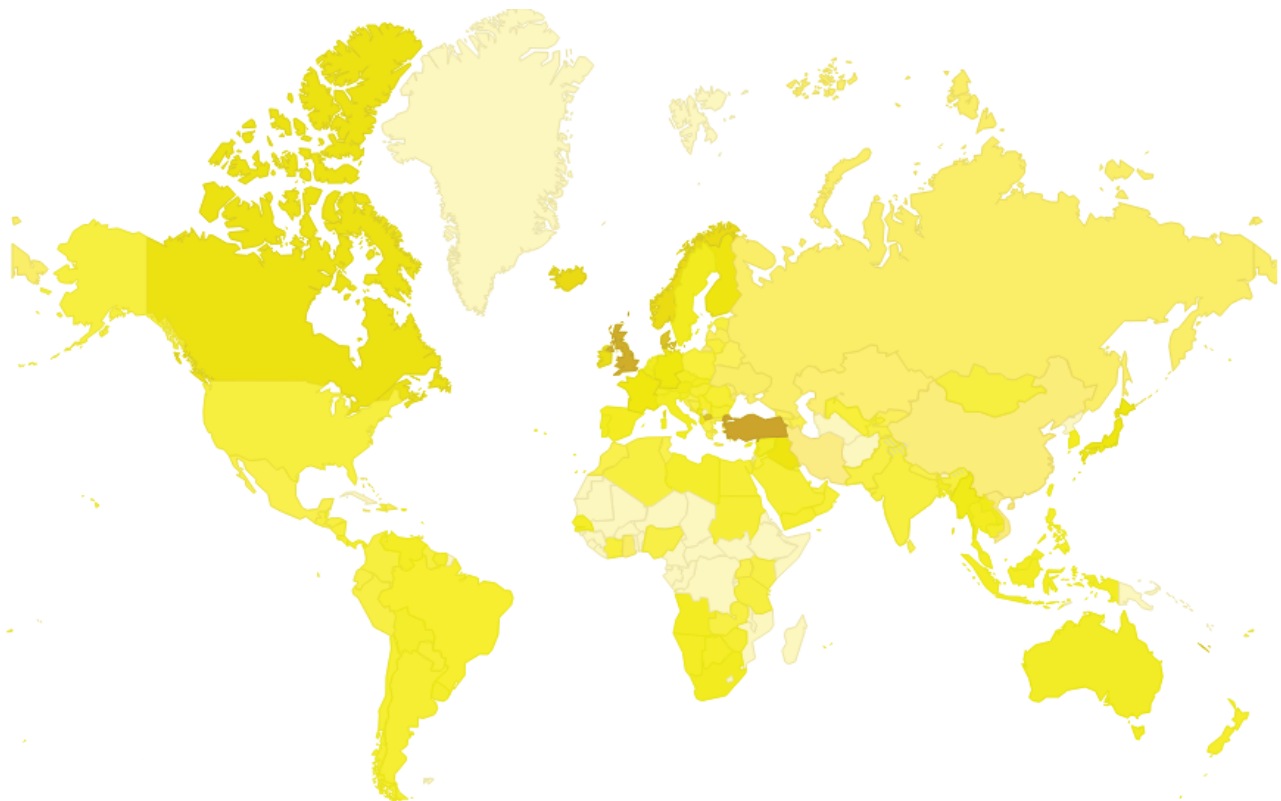
Q1 Average Max Engagement Score Arcade + Non-Arcade

Average Max Engagement  27



Q1 Average Max Attention Score Arcade + Non-Arcade

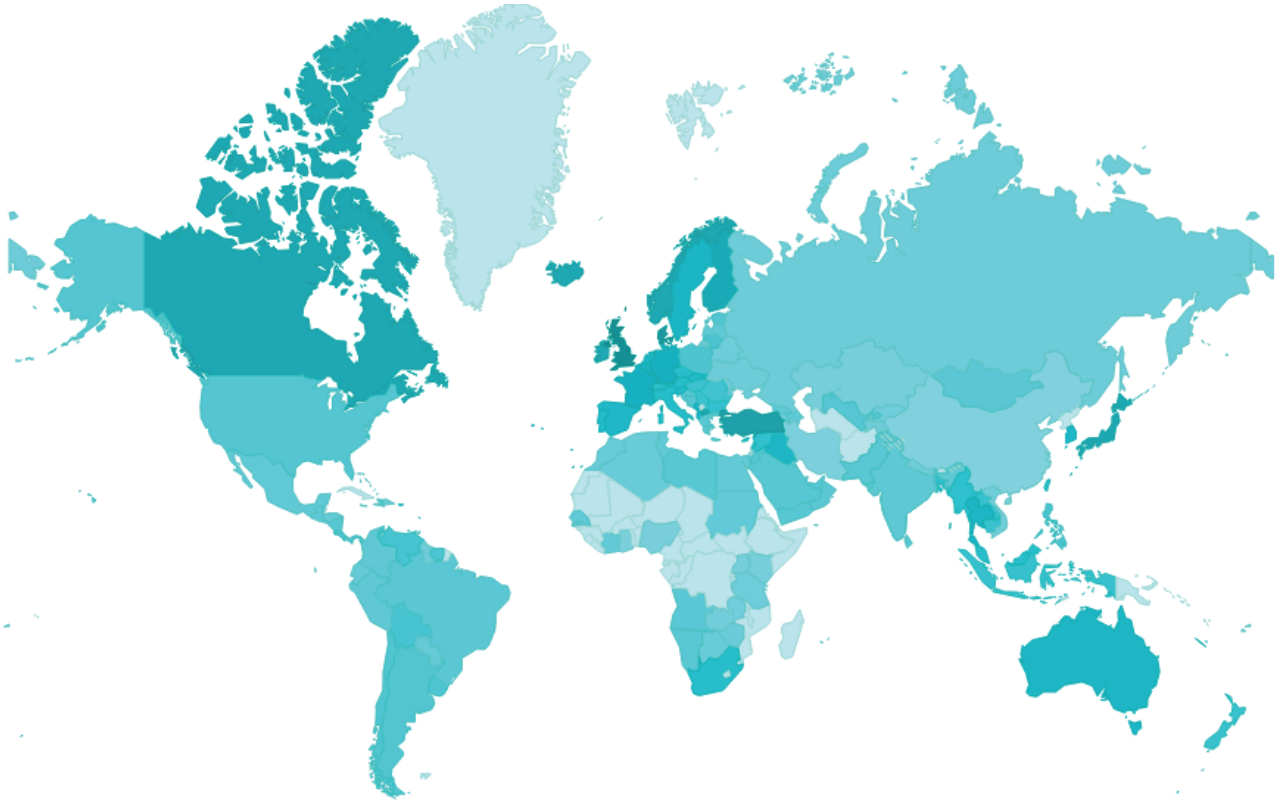
Average Max Attention  28



Q1 Average Max Loyalty Score Arcade + Non-Arcade

Average Max Loyalty

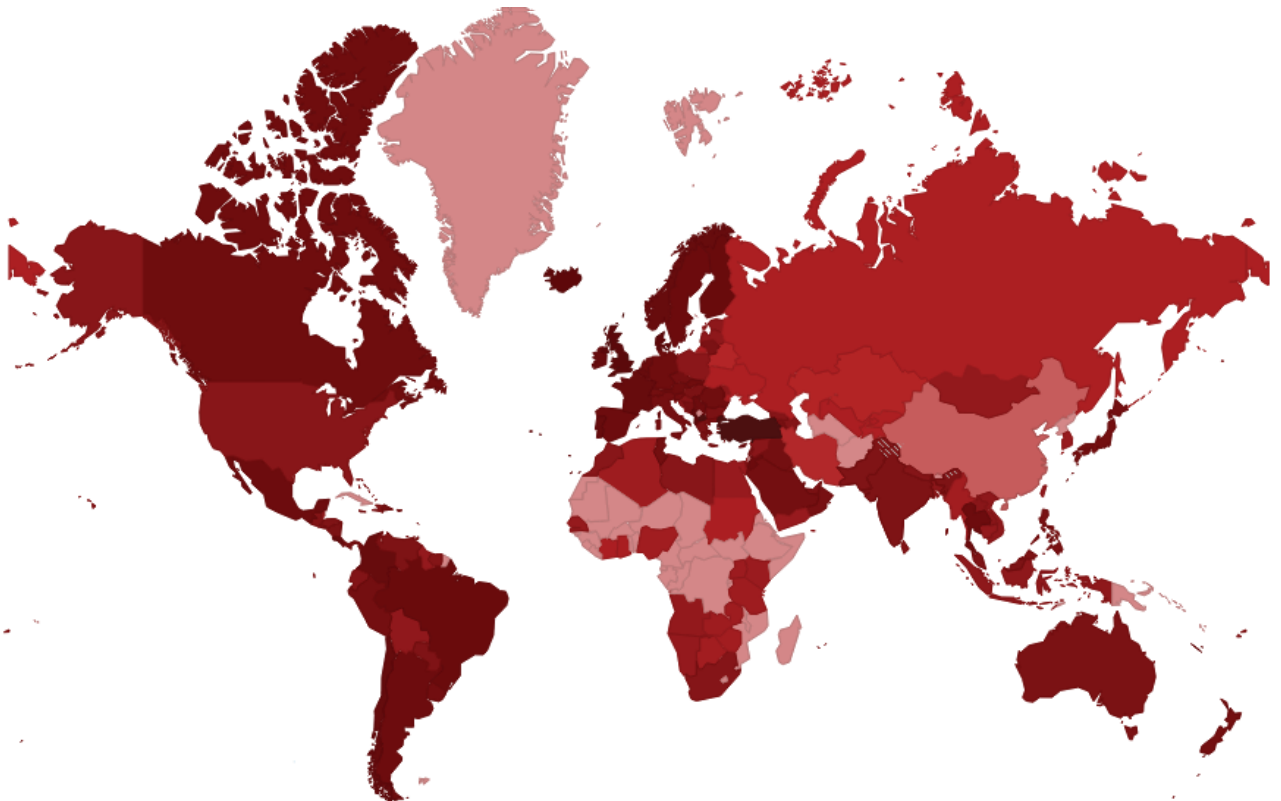
✓ 17



Q1 Average Max Intensity Score Arcade + Non-Arcade

Average Max Intensity

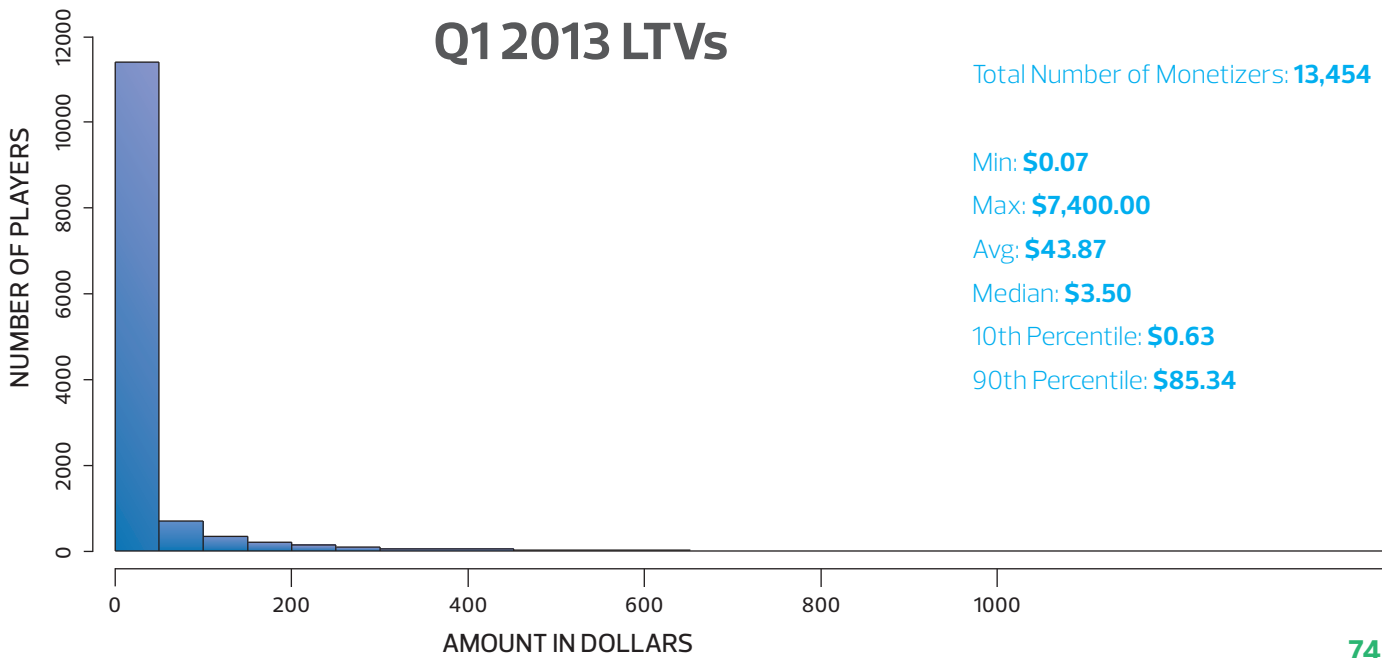
🔥 39



# Playnomics Q1 2013 Monetization Study

Out of a pool of 50 million active users during Q1 2013, we examined over 1.7 million new Non-Arcade players who joined during the first two weeks. For those players only, we observed their monetization behavior over the entirety of the first quarter. By the end of Q1 2013, almost 14,000 players in the cohort of 1.7 million had monetized, roughly 0.77%. Let LTV represent the amount that each monetizer spent over the entirety of the first quarter. (Note that this was a study of an initial 3-month time period, as opposed to a “complete” cohort lifecycle. Some of the players in our initial cohort of 1.7 million will likely monetize for the first time after Q1 2013, and some of our existing monetizers will likely keep spending beyond Q1 2013.)

## Q1 2013 LTVs

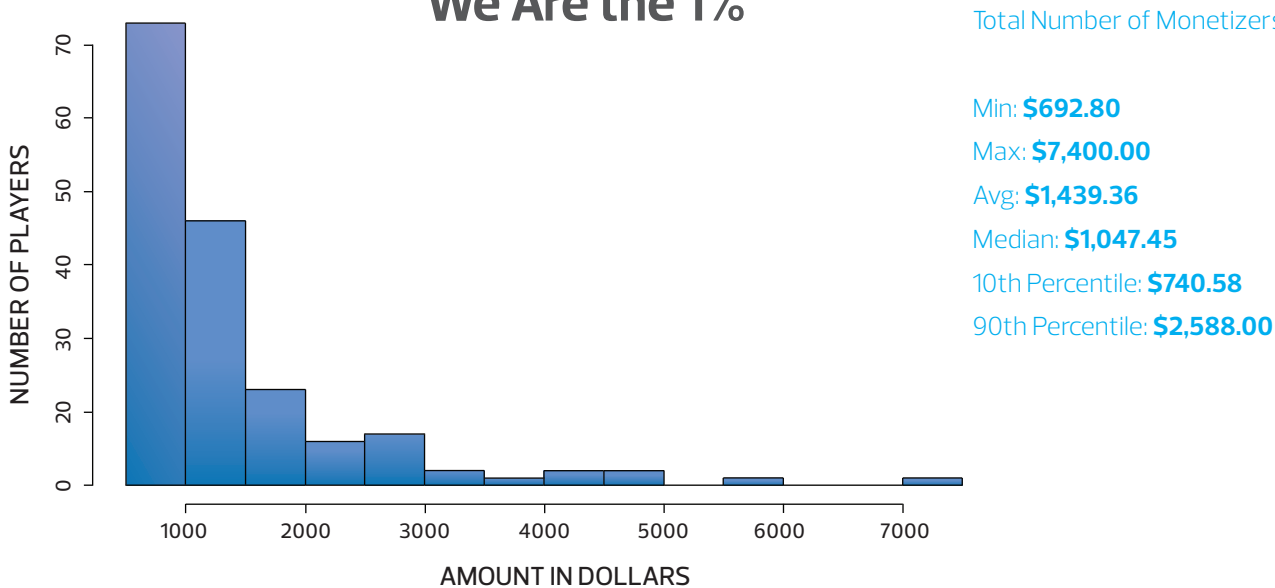


**7400**

The highest whale amongst monetizers who joined within the first two weeks of Q1 spent **\$7400**

Not only is the distribution of LTVs highly skewed amongst all 14,000 monetizers, it is still significantly skewed even when we look at just the top 1% of spenders.

## We Are the 1%



These two graphs suggest that LTV over some sufficiently long time period strongly resembles a power law distribution (also known as the 80-20 rule). Our expectation here would be that roughly 20% of monetizers account for 80% of total LTV. But in fact, the table below depicts that our LTV distribution is even more skewed than that.

Total Spent Amongst All 13,454 Monetizers for Q1 2013: **\$590,239.48**

Total Spent Amongst Top 1% of Monetizers: <b>\$192,874.28</b>	Percentage of Total Spend Accounted for by Top 1%: <b>32.68%</b>
Total Spent Amongst Top 20% of Monetizers: <b>\$534,148.89</b>	Percentage of Total Spend Accounted for by Top 20%: <b>90.50%</b>
Total Spent Amongst Top 50% of Monetizers: <b>\$580,990.68</b>	Percentage of Total Spend Accounted for by Top 50%: <b>98.43%</b>
Total Spent Amongst Top 60% of Monetizers: <b>\$584,897.11</b>	Percentage of Total Spend Accounted for by Top 60%: <b>99.09%</b>








In this instance, the top 20% of monetizers accounted for slightly over 90% of the total amount spent during Q1 2013.

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CONTINUE READING TO SEE SOME OF THE DATA USED TO GENERATE THIS REPORT

# Q1 Arcade + Non-Arcade








This table consists of various engagement and session metrics on a global level for **Arcade** and **Non-Arcade** games. The highest numbers for each metric are highlighted in bold. The list is comprised of the top ten countries based on average max engagement plus an additional ten relevant countries.

								
Rank	Country	Avg. Max Engagement	Max Avg. Attention	Avg. Max Loyalty	Max Avg. Intensity	Avg. Number of Sessions	Avg. Minutes Per Session	Avg. Total Minutes
1	Turkey	<b>49</b>	<b>47.6</b>	32.6	<b>73.7</b>	15.4	<b>45.9</b>	<b>705</b>
2	United Kingdom	48.3	46.3	<b>38</b>	68.1	22.2	21.2	470.4
3	Denmark	46.2	42.9	35.4	67.2	20.9	21.2	442.8
4	Macedonia	46.1	43.1	30.1	72.3	14.2	34.2	486
5	Iceland	43.3	39.7	30	66.8	16.2	21	341.4
6	Ireland	42.1	39.1	30.1	62.6	15.1	20.9	316.8
7	Norway	41.8	39.5	29	62.6	18.1	27.6	499.2
8	Albania	41.8	37.3	25.2	68	11.4	36.9	418.8
9	Canada	41.1	38.7	30	60.2	16.5	19.9	328.2
10	Montenegro	40.9	37.2	25.6	65.5	11.9	34.5	411
19	France	40.2	37.6	26.8	63	13.1	23.3	305.4
20	Japan	39.8	37.9	29.7	58.6	<b>22.5</b>	30.4	683.4
40	Australia	36.7	35.4	25.1	55.4	11.8	25	295.8
42	Italy	36.4	33.1	23.4	58.2	13.3	17.3	230.4
63	Brazil	34.6	29.9	16.2	61.5	3.8	20.9	79.8
74	Philippines	33.9	31.2	18.5	56.2	4.6	22.3	102.5
88	South Korea	32.6	33.9	24.8	44.4	17	28.9	492
125	United States	30.8	27.1	17.4	50.9	6.5	21.9	142.8
209	Russia	22.4	22.9	13.7	32.5	3.3	23.2	76.2
221	China	11.8	21.5	11.4	2.9	1.3	12.7	16.8










# Q1 Arcade

This table consists of various engagement and session metrics on a global level for **Arcade** games only. The highest numbers for each metric are highlighted in bold. The list is comprised of the top ten countries based on average max engagement plus an additional ten relevant countries.

								
Rank	Country	Avg. Max Engagement	Max Avg. Attention	Avg. Max Loyalty	Max Avg. Intensity	Avg. Number of Sessions	Avg. Minutes Per Session	Avg. Total Minutes
1	Chile	<b>32.8</b>	21.2	11.3	<b>66.7</b>	1.3	16.1	20.4
2	Columbia	32.2	21	10.9	65.2	1.2	14.5	17.4
3	Brazil	31.1	22.8	11.5	59.9	1.3	16.9	22.2
4	Albania	31.1	21.6	11.4	61.1	1.3	16.4	21
5	Argentina	30.9	22.2	11.3	60.2	1.3	17.7	22.8
6	Tunisia	30.9	21.5	11.6	60.7	1.4	14.7	19.8
7	Philippines	30.3	<b>24.8</b>	11.7	55.5	1.3	22.3	29.4
8	Jordan	30.2	21.9	11.4	58.2	1.3	15.9	20.4
9	Mexico	30.2	20.4	11.3	59.8	1.3	13.9	18
10	South Africa	30.2	23.8	11.8	56.1	1.4	20.4	28.8
22	Turkey	29.8	18.7	11.3	59.9	1.3	10.3	13.2
49	Italy	28.2	21.6	11.7	52.3	1.4	15.8	21.6
63	France	27.9	20.1	12.3	50.2	1.6	16.8	27
90	United Kingdom	26.9	20.9	11.5	49.1	1.3	19.1	25.2
116	United States	26	21.7	11.8	46.1	1.5	21.8	31.8
124	Australia	25.8	23.3	11.7	43.7	1.4	<b>27.4</b>	<b>37.8</b>
125	Canada	25.8	22.2	11.5	44.5	1.4	23.2	33
175	Russia	20.5	21.6	<b>12.4</b>	28.7	<b>2.1</b>	16.8	34.8
189	South Korea	17.7	22.9	11.8	19.6	1.4	15.6	22.2
220	China	11.7	21.9	11.4	2.8	1.3	12.3	16.2

# Q1 Non-Arcade

This table consists of various engagement and session metrics on a global level for **Non-Arcade** games only. The highest numbers for each metric are highlighted in bold. The list is comprised of the top ten countries based on average max engagement plus an additional ten relevant countries.

								
Rank	Country	Avg. Max Engagement	Max Avg. Attention	Avg. Max Loyalty	Max Avg. Intensity	Avg. Number of Sessions	Avg. Minutes Per Session	Avg. Total Minutes
1	Hong Kong	<b>56.8</b>	<b>52.7</b>	<b>53.8</b>	<b>78.2</b>	<b>48.9</b>	23.9	<b>1171.2</b>
2	Canada	54.2	52.6	45.4	73.2	29.4	19.7	579
3	Macau	52.8	48.3	48.5	74.2	38.5	23.2	894.6
4	Turkey	52	52.1	35	75.9	17.6	<b>46.3</b>	813
5	United Kingdom	51.7	50.3	42.2	71.1	25.5	21.2	540.6
6	United States	51.6	50.7	41.9	71.9	28.9	21.8	629.4
7	Denmark	50.7	48	41.1	71.4	25.5	21.2	539.4
8	Macedonia	50.7	48.8	35	76.6	17.7	34.6	613.8
9	Japan	50.6	48.2	41.4	72.5	36.5	30.7	1119
10	South Korea	49.2	46.3	39.4	72.1	34.4	29.5	1016.4
28	Germany	47.6	46.5	34.7	70.6	21.3	30.8	653.4
41	France	44.2	42.7	31.6	67.3	16.9	23.6	397.8
45	Australia	43.9	43.4	33.9	63.1	18.7	24.9	465.6
70	Thailand	41.6	37.9	29.6	65	11.7	19.9	233.4
89	Italy	40.2	38.3	28.7	60.9	18.7	17.4	325.8
116	Brazil	38.3	37.1	21	63.1	6.4	21.9	139.8
124	Indonesia	37.2	37.6	25.7	56.4	9.6	26.2	249
134	Philippines	36.9	36.3	23	56.7	7.3	22.2	161.4
147	Russia	35.9	31.9	23.2	59.8	11.9	31.5	375
198	China	30.1	26.7	15.8	51	4.2	25.6	107.4



## Methodology

The Playnomics Q1 engagement report is based on anonymized game event data collected from a range of publishers and developers both domestic and international. For the purposes of this report, we sampled data from over 50 million players who were active during Q1 of 2013. In performing our analyses, we studied these players across almost 300 million game sessions played, and 8.24 billion in-game events. The games included in this study were primarily social, casual and mobile games. These games are accessible across a wide range of platforms including PC, tablet and smartphone.

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